

Title (en)

ELECTRIC TOOL SYSTEM, METHOD FOR USING ELECTRIC TOOL SYSTEM, AND PROGRAM

Title (de)

ELEKTRISCHES WERKZEUGSYSTEM, VERFAHREN ZUM VERWENDEN DES ELEKTRISCHEN WERKZEUGSYSTEMS UND PROGRAMM

Title (fr)

SYSTÈME D'OUTIL ÉLECTRIQUE, PROCÉDÉ D'UTILISATION DE SYSTÈME D'OUTIL ÉLECTRIQUE, ET PROGRAMME

Publication

**EP 4064554 A4 20230208 (EN)**

Application

**EP 20890148 A 20200918**

Priority

- JP 2019211834 A 20191122
- JP 2020035611 W 20200918

Abstract (en)

[origin: EP4064554A1] The problem to be overcome by the present disclosure is to improve the accuracy of control of a motor. An electric tool system (1) includes a motor (15), a control unit (4), and an output shaft. The motor (15) includes a stator (14) and a rotor (13). The control unit (4) performs vector control on the motor (15). The control unit (4) includes a first acquisition unit (60), a second acquisition unit (47), and a command value generation unit (40). The command value generation unit (40) calculates, based on a torque current acquisition value (current measured value (iq1)) as a value related to a torque current as acquired by the first acquisition unit (60) and an acceleration acquisition value ( $\alpha 1$ ) as a value related to acceleration of the rotor (13) as acquired by the second acquisition unit (47), at least one of a command value (ciql) of the torque current to be supplied to the motor (15) or a command value (cidl) of an excitation current to be supplied to the motor (15).

IPC 8 full level

**H02P 21/22** (2006.01); **B25F 5/00** (2006.01)

CPC (source: EP US)

**B25B 21/02** (2013.01 - US); **B25B 23/1475** (2013.01 - US); **B25F 5/00** (2013.01 - EP); **H02P 21/22** (2016.02 - EP); **H02P 23/0004** (2013.01 - US)

Citation (search report)

- [XY] WO 2017175474 A1 20171012 - SHINANO KENSHI CO [JP]
- [Y] US 2016325414 A1 20161110 - MIZUNO MITSUMASA [JP], et al
- [Y] US 2019294138 A1 20190926 - DOBASHI KAZUO [JP], et al
- See references of WO 2021100309A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**EP 4064554 A1 20220928**; **EP 4064554 A4 20230208**; CN 114731128 A 20220708; JP 2021083295 A 20210527; JP 7378064 B2 20231113; US 2023001549 A1 20230105; WO 2021100309 A1 20210527

DOCDB simple family (application)

**EP 20890148 A 20200918**; CN 202080080389 A 20200918; JP 2019211834 A 20191122; JP 2020035611 W 20200918; US 202017778308 A 20200918